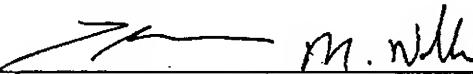


04-436

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE SECRETARY OF DEFENSE ON BEHALF OF THE DEPARTMENT OF DEFENSE
OF THE UNITED STATES OF AMERICA
AND THE
SECRETARY OF STATE FOR DEFENCE
OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
FOR THE

COOPERATION IN THE ENGINEERING AND MANUFACTURING DEVELOPMENT
(EMD) PHASE OF THE U.S. LIGHTWEIGHT 155mm HOWITZER (LW155) PROGRAM

Certified to be a true copy:


Thomas Noble, Navy IPO-03B2

8 October 1998

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INTRODUCTION

The Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, hereinafter referred to as the "Participants":

Recognizing the Agreement Concerning Defense Cooperation Arrangements of 27 May 1993 between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland will apply to this MOU;

Recognizing the Participants have entered into the U.S./U.K. Memorandum of Understanding Relating to the Principles Governing Cooperation in Research and Development, Production, Procurement and Logistic support of Defence Equipment of 13 December 1994;

Having a common interest in defense;

Recognizing the benefits to be obtained from standardization, rationalization, and interoperability of military equipments;

Desiring to improve their mutual conventional defense capabilities through the application of emerging technology;

Having a mutual need for the development of an advanced towed lightweight 155mm howitzer in the U.S. LW155 Howitzer (LW155) Program and the U.K. Lightweight Mobile Artillery Weapons Systems (LIMAWS) Program to satisfy similar operational requirements; and

Having independently conducted studies of the applications of various technologies, recognize the benefits of cooperation in the Engineering and Manufacturing Development phase of the U.S. LW155 Howitzer Program;

Have reached the following understandings:

SECTION I

DEFINITIONS

The Participants have jointly decided upon the following definitions for terms used in this Memorandum Of Understanding (MOU) :

Classified Information	Official information that requires protection in the interests of national security and is so designated by the application of a security classification marking.
Contract	Any mutually binding legal relationship which obligates a Contractor to furnish supplies or services, and obligates one or both of the Participants to pay for them.
Contracting	The obtaining of supplies or services by Contract from sources outside the government organizations of the Participants. Contracting includes description of supplies and services required, solicitation and selection of sources, preparation and award of Contracts, and all phases of Contract administration.
Contracting Agency	The entity within the government organization of a Participant, which has authority to enter into, administer, or terminate Contracts.
Contracting Officer	A person representing a Contracting Agency of a Participant who has the authority to enter into, administer, or terminate Contracts.
Contractor	Any entity awarded a Contract by a Participant's Contracting Agency.

Controlled Unclassified Information	Unclassified Information to which access or distribution limitations have been applied in accordance with applicable national laws or regulations. Whether the information is provided or generated under this MOU, the information will be marked to identify its "in confidence" nature. It could include information which has been declassified, but remains controlled.
Cost Ceiling	The maximum amount to which the Cost Target may move without the prior written approval of the Participants.
Cost Target	The accepted planning figure of the total financial cost of the Project.
Defense Purposes	Manufacture or other use in any part of the world by or for the armed forces of any Participant.
Designated Security Authority (DSA)	The security office approved by national authorities to be responsible for the security aspects of this MOU.
EMD	Engineering and Manufacturing Development.
Financial Costs	Any Project costs that, due to their nature, will be paid using monetary contributions from the Participants.
LIMAWS	U.K. Lightweight Mobile Artillery Weapon System.
LW155	Lightweight 155mm Howitzer.
Non-financial Costs	Any Project costs that, due to their nature, will be met using non-monetary contributions from the Participants.
Patent	Legal protection of the right to exclude others from making, using, or selling an invention. The term refers to any and all patents including, but not limited to, patents of implementation, improvement, or addition, petty patents, utility models, appearance design patents, registered designs, and inventor certificates or like statutory protection as well as divisions,

	reissues, continuations, renewals, and extensions of any of these.
Project	The cooperative program described in this MOU for testing and development in the EMD Phase of the U.S. LW155 program.
Project Equipment	Any material, equipment, end item, subsystem, component, special tooling or test equipment used in the Project.
Project Background Information	Project Information not generated in the performance of the Project.
Project Foreground Information	Project Information generated in the performance of the Project.
Project Information	Any information provided to, generated in, or used in this Project regardless of form or type, including, but not limited to, that of a scientific, technical, business, or financial nature, and also including photographs, reports, manuals, threat data, experimental data, test data, designs, specifications, processes, techniques, inventions, drawings, technical writings, sound recordings, pictorial representations, and other graphical presentations, whether in magnetic tape, computer memory, or any other form and whether or not subject to copyright, Patent, or other legal protection.
Project Invention	Any invention or discovery formulated or made (conceived or first actually reduced to practice) in the course of work performed under a Project. The term first actually reduced to practice means the first demonstration, sufficient to establish to one skilled in the art to which the invention pertains, of the operability of an invention for its intended purpose and in its intended environment.
Third Party	Any person or other entity whose governing authority is not a Participant to this MOU.

SECTION II

OBJECTIVE(S)

- 2.1. The objective of this MOU is to provide arrangements for U.S./U.K. cooperation in the EMD phase of the U.S. LW155 program. The U.S. has an ongoing EMD program to develop an advanced towed Lightweight 155mm Howitzer. The U.K. is considering eventual procurement of an advanced towed Lightweight 155mm Howitzer in the LIMAWS program. This Project will ensure that the U.S. LW155 system is developed and tested to meet U.K. as well as U.S. requirements, that training and maintenance procedures are developed, and that technical specifications for future procurement are developed.
- 2.2. This MOU is a follow-on to cooperation in the U.S. LW155 program begun under an MOU between the U.S. and the U.K. for the Shoot-Off Phase of the U.S. LW155 program, signed on 3 March 1997. In addition to cooperation in the EMD phase, the Participants may wish to pursue follow-on cooperation for the production and in-service support of the LW155. This MOU, however, does not involve any arrangement or responsibility by the Participants to implement any future phases of cooperation beyond the EMD phase of the U.S. LW155 program.

SECTION III

SCOPE OF WORK

3.1. Work under this Project will consist of testing (to include training and logistics demonstrations) of EMD howitzer systems, participation in technical and program reviews, and procurement of ammunition and support for the testing as described in ANNEX A. Specifically, the tests to be conducted under this Project will consist of:

- 3.1.1. Testing within the U.S. LW155 EMD program required by the U.K. and U.S.; and
- 3.1.2. Testing necessary to meet U.K. LIMAWS requirements, which are of interest to the U.S., but not included in the U.S. EMD program.

3.2. The overall work to be performed under this Project includes:

- 3.2.1. U.K. work consisting of, but not limited to:
 - 3.2.1.1. Planning and coordination of LIMAWS program testing at U.S. facilities;
 - 3.2.1.2. Provision of U.K. representatives during testing and logistic demonstrations;
 - 3.2.1.3. Assignment of a U.K. engineer to the U.S. LW155 program office;
 - 3.2.1.4. Provision of LIMAWS program reports and data applicable to the U.S. LW155 EMD effort; and
 - 3.2.1.5. Participation in technical and program reviews to include Integrated Product Team (IPT) meetings for the purpose of ensuring U.K. requirements are fully considered in the U.S. LW155 EMD program.
- 3.2.2. U.S. work consisting of, but not limited to:
 - 3.2.2.1. Planning and conduct of U.S. EMD testing;
 - 3.2.2.2. Conduct and reporting of LIMAWS program testing at U.S. facilities;

- 3.2.2.3. Provision of U.S. LW155 EMD program reports and data applicable to the U.K. LIMAWS program effort; and
 - 3.2.2.4. Conduct of technical and program reviews to include IPT meetings.
- 3.2.3. The U.K. and the U.S. will jointly:
- 3.2.3.1. Analyze and exchange test data. The type of data to be exchanged is described in Annex B.
 - 3.2.3.2. Furnish ammunition and support for testing.

SECTION IV

MANAGEMENT (ORGANIZATION AND RESPONSIBILITY)

4.1. This Project will be directed and administered on behalf of the Participants by Project Managers (PMs) appointed by the Participants. The PMs will have primary responsibility for effective implementation, efficient management, and direction of the Project in accordance with this MOU. Decisions of the PMs will be made unanimously. The Participants will maintain and fund their own organizations for managing this Project.

4.2. The PMs will be responsible for:

- 4.2.1. Exercising executive-level oversight of the Project.
 - 4.2.2. Managing the cost, schedule, performance requirements, and technical aspects of the Project.
 - 4.2.3. Executing the financial aspects of the Project in accordance with Section V (Financial Provisions) of this MOU.
 - 4.2.4. Developing and recommending amendments to this MOU to the Participants.
 - 4.2.5. Modifying the Annexes to this MOU as necessary.
 - 4.2.6. Developing and implementing approved plans to manage and control the transfer of Project Equipment provided by either Participant in accordance with Section VII (Project Equipment).
 - 4.2.7. Developing a Project Security Instruction and a Classification Guide for the Project within three months after MOU signature, and implementing them upon final approval.
 - 4.2.8. Forwarding recommendations to the Participants for the addition of new Participants in accordance with Section XIV (Participation of Additional Nations).
- 4.3. The U.S. PM will be the Program Manager for the U.S. LW155 program. The U.K. PM will be the Project Manager for Field Artillery Weapons Systems.

SECTION V
FINANCIAL PROVISIONS

5.1. Each Participant will contribute its equitable share of the full costs of the Project, including overhead costs, administrative costs, and costs of claims. The assignment of work represents an equitable sharing of work to be performed under the Project, and each Participant will receive an equitable share of the results of the Project.

5.2. Each Participant will fund the full extent of its participation in this Project. The Participants estimate that the performance of the responsibilities under this MOU will not cost more than a Cost Target of \$13.4 million 1998 U.S. dollars and a Cost Ceiling of \$14 million 1998 U.S. dollars. The difference between the Cost Target and the Cost Ceiling is a contingency only and any decision to incur costs above the Cost Target will only be made upon the written consent of the PMs. The U.S. dollar will be the reference currency for the Project and the Project fiscal year will be the U.S. fiscal year.

5.3. Each Participant will bear the full costs it incurs for performing, managing, and administering its activities under this MOU and all such costs will be included as part of each Participant's contributions to the Project. These costs include financial and non-financial contributions (e.g., salaries, travel, and per diem costs for its Project personnel), as well as any Contract costs.

5.4 The full Financial Costs and Non-financial Costs of the Project will be shared according to the following percentages:

<u>Participant</u>	<u>Percentage Share</u>
United Kingdom	50%
United States	50%

5.5. All U.S. contributions to the Project Cost Target will be non-financial contributions to cover U.S effort as described in Section III (Scope of Work) and Annex A (Project Plan). The U.S. non-financial contribution for this Project is \$6.7 million U.S. dollars.

5.6 The U.K. contribution to the Project Cost Target is \$6.7 million U.S. dollars which consists of financial and non-

financial contributions to cover effort described in Section III (Scope of Work) and Annex A (Project Plan). The U.K. financial contribution consists of \$5 million U.S. dollars to be made before 31 October 1998 and an estimated \$150 thousand U.S. dollars for the use of U.S. range facilities for LIMAWS program testing. The U.K. non-financial contributions will provide for U.K. personnel and testing effort.

5.7. Cooperative efforts of the Participants over and above the jointly determined work described in Section III (Scope of Work) will be subject to future arrangement by the Participants.

5.8. The following costs will be borne entirely by the Participant incurring the costs:

5.8.1. Costs associated with any unique national requirements identified by a Participant.

5.8.2. Any other costs outside the scope of this MOU.

5.9. A Participant will promptly notify the other Participant if available funds are not adequate to fulfill its responsibilities under this MOU. If a Participant notifies the other Participant that it is terminating or reducing its funding for this Project, both Participants will immediately consult with a view toward continuation on a modified basis. In the event that, following consultation, the Participants mutually decide that such continuation is not practicable, the provisions of Section XVII (Amendment, Termination, Entry into Effect, and Duration) will apply.

5.10. Any audits of the Project will be performed by the U.S. on behalf of the Participants. The U.K. will assist the U.S. on any audit elements required satisfactorily to perform the audits. Where national auditors need to obtain Project specific information to be able to fulfill their national obligations, the Participants will facilitate access to such information. Any audit reports of one Participant related to the Project will be made available to the other Participant.

SECTION VI
CONTRACTING PROVISIONS

6.1. If either Participant determines that Contracting is necessary to fulfill that Participant's responsibilities under Section III (Scope of Work) of this MOU, that Participant will contract in accordance with their respective national laws, regulations and procedures. Sources from both Participants' industries will be allowed to compete on an equal basis for such Contracts.

6.2. When one Participant individually contracts to perform a task under this MOU, it will be solely responsible for its own Contracting, and the other Participant will not be subject to any liability arising from such Contracts without its prior written consent.

6.3. For all Contracting activities performed by either Participant, the PMs will, upon request, be provided with a copy of all statements of work prior to the development of solicitations.

6.4. Each Participant's Contracting Agency will negotiate to obtain the rights to use and disclose Project Information required by Section VIII (Disclosure and Use of Project Information). Each Participant's Contracting Agency will insert into its prospective Contracts (and require its Contractors to insert in subcontracts) suitable provisions to satisfy the requirements of this MOU, including Section VIII (Disclosure and Use of Project Information), Section IX (Controlled Unclassified Information), Section XI (Security) and Section XII (Third Party Sales and Transfers). During the Contracting process, each Participant's Contracting Officer will advise prospective Contractors of their responsibility to immediately notify the Contracting Agency, before Contract award, if they are subject to any license or agreement that will restrict that Participant's freedom to disclose information or permit its use. The Contracting Officer will also advise prospective Contractors to employ their best efforts not to enter into any new agreement or arrangement that will result in restrictions.

6.5. In the event a Participant's Contracting Agency is unable to secure adequate rights to use and disclose Project Information as required by Section VIII (Disclosure and Use of Project Information), or is notified by Contractors or potential Contractors of any restrictions on the disclosure and use of

information, that Participant's PM will notify the other Participant's PM of the restriction(s).

6.6. Each Participant's PM will promptly advise the other Participant's PM of any cost growth, schedule delay, or performance problems of any Contractor in connection with any Contract for which its Contracting Agency is responsible.

SECTION VII

PROJECT EQUIPMENT

7.1. Each Participant may provide Project Equipment identified as being necessary for executing the MOU to the other Participant. Project Equipment will remain the property of the providing Participant. A list of all Project Equipment provided by one Participant to the other Participant will be developed and maintained by the PMs. in accordance with Section IV (Management) prior to such transfers.

7.2. The receiving Participant will maintain any such Project Equipment in good order, repair, and operable condition and return the items in as good condition as received, normal wear and tear excepted. The receiving Participant will pay the cost of damage (other than normal wear and tear) to or loss of Project Equipment.

7.3. All Project Equipment that is transferred will be used by the receiving Participant only for the purposes of carrying out this MOU. In addition, in accordance with Section XII (Third Party Sales and Transfers) Project Equipment will not be re-transferred to a Third Party without the prior written consent of the providing Participant.

7.4. Project Equipment transferred to the other Participant under this MOU will be returned to the providing Participant prior to the termination or expiration of this MOU.

SECTION VIII
DISCLOSURE AND USE OF PROJECT INFORMATION

8.1 General

Both Participants recognize that successful collaboration depends on full and prompt exchange of information necessary for carrying out this Project. The Participants intend to acquire sufficient Project Information and rights and benefits of use to assist both Participants in meeting their requirements for an advanced LW155 Howitzer system, either cooperatively or nationally. The nature and amount of Project Information to be acquired will be consistent with the objectives stated in Section II (Objectives), and Section III (Scope of Work).

8.2. Government Project Foreground Information

- 8.2.1. Disclosure: Project Foreground Information generated in whole or in part by a Participant's military or civilian employees will be disclosed without charge to both Participants.
- 8.2.2. Use: Each Participant may use all Government Project Foreground Information without charge for Defense Purposes. The Participant generating Government Project Foreground Information will also retain its rights of use thereto. If a Participant intends to use any Government Project Foreground Information in a sale or other transfer to a Third Party, however, the provisions of Section XII (Third Party Sales and Transfers) of this MOU will also apply.

8.3. Government Project Background Information

- 8.3.1. Disclosure: Each Participant, upon request, will disclose to the other Participant any relevant Government Project Background Information generated by its military or civilian employees outside the scope of this MOU, provided that:
 - 8.3.1.1. such Project Background Information is necessary to or useful in the Project, with the Participant in possession of the information determining whether it is "necessary to" or "useful in" the Project;

- 8.3.1.2. such Project Background Information may be made available without incurring liability to holders of proprietary rights; and
 - 8.3.1.3. disclosure is consistent with national disclosure policies and regulations of the furnishing Participant.
- 8.3.2. Use: Government Project Background Information disclosed by one Participant to the other may be used without charge by the other Participant for Project Purposes only; however, the furnishing Participant will retain all its rights with respect to such Project Background Information.

8.4. Contractor Project Foreground Information

- 8.4.1. Disclosure: Project Foreground Information generated and delivered by Contractors, will be disclosed without charge to both Participants.
- 8.4.2. Use: Each Participant may use without charge for Defense Purposes all Contractor Project Foreground Information generated and delivered by Contractors of the other Participant. The Participant whose Contractors generate and deliver Contractor Project Foreground Information will also retain rights of use thereto in accordance with the applicable Contract(s). If a Participant intends to use any Contractor Project Foreground Information in a sale or other transfer to a Third Party, the provisions of Section XII (Third Party Sales and Transfers) of this MOU will also apply. The Participants will consider acquiring the legal rights to use Contractor Project Foreground Information in a sale.

8.5. Contractor Project Background Information

- 8.5.1. Disclosure: Any relevant Project Background Information, (including information subject to proprietary rights) generated and delivered by Contractors or other entities under Contracts awarded by a Participant outside the scope of this MOU, will be made available to the other Participant provided the following provisions are met:

- 8.5.1.1. such Project Background Information is necessary to or useful in the Project, with the Participant in possession of the information determining whether it is "necessary to" or "useful in" the Project;
 - 8.5.1.2. such Project Background Information may be made available without incurring liability to holders of proprietary rights; and
 - 8.5.1.3. disclosure is consistent with national disclosure policies and regulations of the furnishing Participant.
- 8.5.2. Use: Project Background Information furnished by one Participant's Contractors and disclosed to the other Participant may be used without charge by the other Participant for Project Purposes only, and may be subject to further restrictions by holders of proprietary rights; however, the furnishing Participant will retain all its rights with respect to such Project Background Information.

8.6. Proprietary Project Information

- 8.6.1. All Project Information subject to proprietary interests will be identified and marked, and it will be handled as Controlled Unclassified Information.
- 8.6.2. The provisions of the NATO Agreement on the Communication of Technical Information for Defence Purposes, done at Brussels on 19 October 1970, and the Implementing Procedures for the NATO Agreement on the Communication of Technical Information for Defence Purposes, approved by the North Atlantic Council on 1 January 1971, will apply to proprietary Project Information related to this MOU.

8.7. Patents

- 8.7.1. Where a Participant owns title to a Project Invention, or has the right to receive title to a Project Invention, that Participant will consult with the other Participant regarding the filing of a Patent application for such Project Invention. The Participant which has or receives title to such Project Invention will, in other countries, file, cause to be filed, or provide the other Participant

with the opportunity to file on behalf of the Participant holding title, or its Contractors, as appropriate, Patent applications covering that Project Invention. If a Participant having filed or caused to be filed a Patent application decides to stop prosecution of the application, that Participant will notify the other Participant of that decision and permit the other Participant to continue the prosecution.

- 8.7.2. The other Participant will be furnished with copies of Patent applications filed and Patents granted with regard to Project Inventions.
- 8.7.3. The other Participant will acquire a non-exclusive, irrevocable, royalty-free license to practice or have practiced, by or on behalf of the Participant, throughout the world for Defense Purposes, any Project Invention.
- 8.7.4. Patent applications which contain Classified Information, to be filed under this MOU, will be protected and safeguarded in accordance with the requirements contained in the NATO Agreement for the Mutual Safeguarding of Secrecy of Inventions Relating to Defense and for Which Applications for Patents Have Been Made, done in Paris on 21 September 1960, and its Implementing Procedures.
- 8.7.5. Each Participant will notify the other Participant of any Patent infringement claims made in its territory arising in the course of work performed under the Project. Insofar as possible, the other Participant will provide information available to it that may assist in defending the claim. Each Participant will be responsible for handling all Patent infringement claims made in its territory, and will consult with the other Participant during the handling, and prior to any settlement, of such claims. The Participants will share the costs of resolving Patent infringement claims in the same percentage as they share the full Financial Costs and Non-Financial Costs of the Project. The Participants will, in accordance with their national laws and practices, give their authorization and consent for all use and manufacture in the course of work performed under the Project of any invention covered by a Patent issued by their respective countries.